

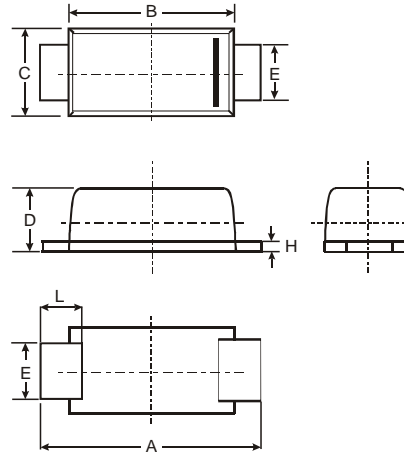
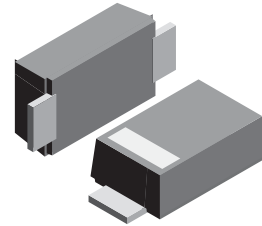
REVERSE VOLTAGE: 50 - 600 V
CURRENT: 1.0 A

Features

- Glass passivated device
- Ideal for surface mounted applications
Low leakage current
- Metallurgically bonded construction
High temperature soldering:
250 /10 seconds at terminals

Mechanical Data

- Case: SOD-123FL
plastic body over passivated junction
- Terminals : Plated axial leads,
solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight:0.0007 ounce, 0.02 grams



| SOD-123FL | | | |
|----------------------|-------|------|------|
| Dim | Min | Max | Typ |
| A | 3.58 | 3.72 | 3.65 |
| B | 2.72 | 2.78 | 2.75 |
| C | 1.77 | 1.83 | 1.80 |
| D | 1.02 | 1.08 | 1.05 |
| E | 0.097 | 1.03 | 1.00 |
| H | 0.13 | 0.17 | 0.15 |
| L | 0.53 | 0.57 | 0.55 |
| All Dimensions in mm | | | |

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | SOD1E1 | SOD1E2 | SOD1E3 | SOD1E4 | SOD1E5 | SOD1E6 | SOD1E7 | SOD1E8 | Unit | |
|--|------------|----------------|--------|--------|--------|--------|--------|--------|--------|------|---------------|
| | Marking | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | | |
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V | |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 350 | 420 | V | |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V | |
| Maximum average forward rectified current $T_A=65$ | $I_{(AV)}$ | 1.0 | | | | | | | | A | |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_L=25$ | I_{FSM} | 25 | | | | | | | | A | |
| Maximum instantaneous (NOTE 1) forward voltage at 1.0A | V_F | 0.95 | | | 1.25 | | 1.7 | | | V | |
| Maximum DC reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$ | I_R | 5.0 | | | | | 150 | | | | μA |
| Maximum reverse recovery time (NOTE 2) | t_{rr} | 35 | | | | | | | | ns | |
| Operating temperature range | T_j | - 55 --- + 150 | | | | | | | | | |
| Storage temperature range | T_{STG} | - 55 --- + 150 | | | | | | | | | |

NOTES:1.Pulse test:300ms pulse width,1% duty cycle.

2.Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

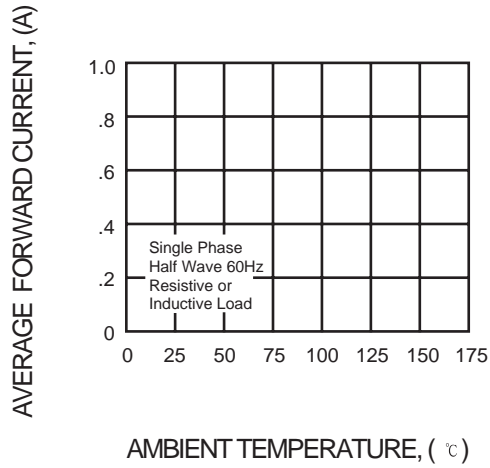


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

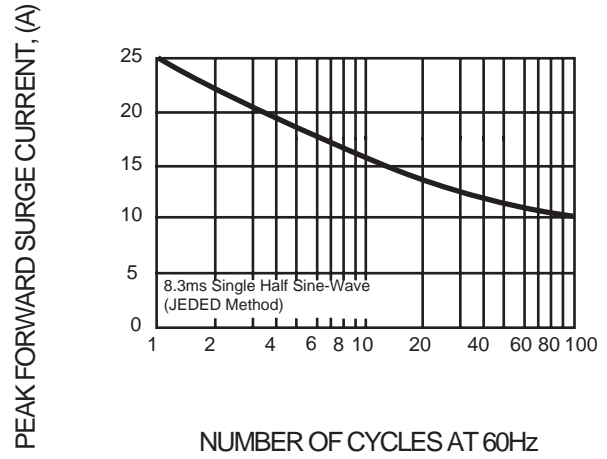


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

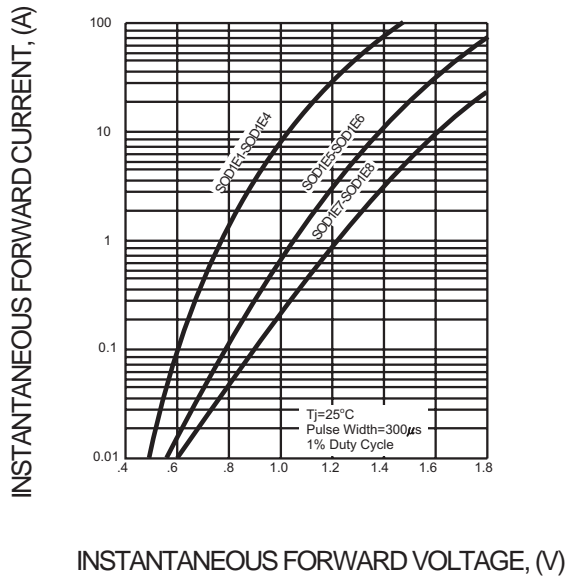


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

